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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/020,637
Filing Date: December 14, 2001
Appellant(s): HARVEY ET AL.

MAILED

AUG 13 2007

GROUP 3600

Alyssa Dudkowski (Reg. No. 40,596)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 25, 2007 appealing from the Office action mailed September 22, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct. However, it should be noted that the Examiner has withdrawn the rejection of claims 17 and 18 under 35 U.S.C. 101 since claims 17 and 18 have been cancelled.

This correction is made in the grounds of rejection below.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

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WO 98/18352 A1

BAUER et al.

5-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-16 and 19-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (WO 98/18352 A1).

Claims 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. (WO 98/18352 A1).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-16 and 19-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Under the statutory requirement of 35 U.S.C. § 101, a claimed invention must produce a useful, concrete, and tangible result. For a claim to be useful, it must yield a result that is specific, substantial, and credible (MPEP § 2107). A concrete result is one that is substantially repeatable, i.e., it produces substantially the same result over and over again (*In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)). In order to be tangible, a claimed invention must set forth a practical application that generates a real-world result, i.e., the claim must be more than a mere abstraction

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(*Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77). (Please refer to the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" for further explanation of the statutory requirement of 35 U.S.C. § 101.)

Claims 1-16 and 19-30 revolve around the steps of calculating a base preference for a product, calculating a downside for the product, and calculating an upside for the product. However, these calculations are never applied to produce a real-world result; therefore, the claims do not produce a tangible result. In other words, the calculations may be limited to the mind of a human user or may be calculated by a computer without any conveyance of the results into the real world where the results may have a practical effect. For example, expressly outputting a result of the calculations on a computer screen or physically manufacturing the product with superior attributes would be a tangible result. In conclusion, claims 1-16 and 19-30 are deemed to be non-statutory for failure to produce a tangible result, thereby resulting in a pure abstract idea.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al. (WO 98/18352 A1).

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Bauer discloses a method for determining preference results for a product having an attribute, the method comprising:

[Claim 1] calculating a base preference for the product (Page 15, "Test Design: Paired Comparison" table);

calculating a downside for the product (Page 15, "Test Design: Paired Comparison" table);

calculating an upside for the product (Page 15, "Test Design: Paired Comparison" table); and

comparing the base preference, the downside and the upside to identify product attributes affecting preference results (Page 15 -- The preferences for foaming spray heads versus non-foaming spray heads are compared);

[Claim 2] wherein the base preference is an overall preference for the product where no test subject prefers the product on its delivery of the attribute (Page 15, "Test Design: Paired Comparison" table -- "Overall Preference");

[Claim 3] wherein the base preference is the ratio of the number of test subjects who preferred the product overall but not with respect to the attribute to the number of test subjects who did not prefer the product with respect to the attribute (Page 15, "Test Design: Paired Comparison" table; Page 15, "Surprisingly, consumers were shown to prefer the foaming embodiment of identical cleaning compositions by a greater than 2:1 margin. Interestingly, the foaming article was perceived as performing with less 'Sliminess' and as only fractionally more difficult to rinse off.");

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[Claim 4] wherein the downside is an overall preference about the base preference attributable to the attribute (Page 15, "Test Design: Paired Comparison" table; Page 15, "Surprisingly, consumers were shown to prefer the foaming embodiment of identical cleaning compositions by a greater than 2:1 margin. Interestingly, the foaming article was perceived as performing with less 'Sliminess' and as only fractionally more difficult to rinse off.");

[Claim 5] wherein calculating the downside for the product includes taking the difference between a base preference and an overall preference, wherein the overall preference is the ratio of the number of test subjects who preferred the product overall to the total number of test subjects (Page 15, "Test Design: Paired Comparison" table; Page 15, "Surprisingly, consumers were shown to prefer the foaming embodiment of identical cleaning compositions by a greater than 2:1 margin. Interestingly, the foaming article was perceived as performing with less 'Sliminess' and as only fractionally more difficult to rinse off.");

[Claim 6] wherein the upside is an overall preference attributable to the maximum potential attribute preference (Page 15, "Test Design: Paired Comparison" table);

[Claim 7] wherein calculating an upside for the product includes taking the difference between an overall preference and a best preference, where the best preference is the ratio of the number of test subjects who preferred the product both overall and with respect to the attribute to the number of test subjects who preferred the product with respect to the attribute (Page 15, "Test Design: Paired Comparison" table; Page 15, "Surprisingly, consumers were shown to prefer the foaming embodiment of

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identical cleaning compositions by a greater than 2:1 margin. Interestingly, the foaming article was perceived as performing with less 'Sliminess' and as only fractionally more difficult to rinse off.").

[Claims 8-16, 19] Claims 8-16 and 19 recite limitations already addressed by the rejection of claims 1-7 above; therefore, the same rejection applies.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. (WO 98/18352 A1).

[Claims 20-30] Claims 20-30 recite limitations already addressed by the rejection of claims 1-7 above; therefore, the same rejection applies.

Furthermore, as per claims 20 and 21, while Bauer teaches the matrix of responses including preference results by input choices (Page 15, "Test Design: Paired Comparison" table), Bauer does not expressly teach that the matrix and corresponding calculation results are generated by a computer and software executed thereon. However, Official Notice is taken that it is old and well-known in the art of automation to utilize software executed by a computer to perform calculations and generate spreadsheets commonly completed by hand. Use of a computer to carry out these

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functions yields more accurate and rapid generation of calculation and spreadsheet results. Therefore, since Bauer already teaches the recited matrix and calculations, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Bauer to generate the recited matrix and calculations using software executed by a computer in order to yield more accurate and rapid generation of these calculation and spreadsheet (i.e., matrix) results.

(10) Response to Argument

Regarding the § 101 rejection of claim 1, Appellant argues, "The Examiner suggests that the claimed method needs to be limited to output on a computer screen or the physical manufacture of a product; Appellants respectfully disagree. Fig. 3 is an example of a tangible result provided by the method of claim 1. For at least these reasons, Appellants respectfully submit that the method of claim 1 provides a useful and tangible result." (Page 5 of the Appeal Brief) The Examiner notes that the claims are rejected under § 101 for lacking tangibility. Also, Examiner's suggestions that a tangible result might include the output of a result on a computer screen or actual manufacture of a product were non-limiting examples. Appellant is correct in stating that there are other ways to produce a tangible result. Appellant cites Figure 3 as an example of a tangible result for the claimed invention; however, a tangible result must be claimed and not just disclosed in the specification. Currently, the tangible result is not claimed. Accordingly to *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998), the practical application must be recited

in the claims. The fact that Applicant's claimed invention is capable of being used for practical purposes does not remedy the lack of tangibility of the claimed invention.

Regarding the § 101 rejection of claim 8, Appellant argues that the step of "developing the product with the superior attribute" is tangible (page 5 of the Appeal Brief); however, the Examiner submits that "developing" could merely refer to the abstract process of coming up with ideas. In other words, there is no requirement in the claim that the product be created or otherwise have an effect in the real world; therefore, this concept remains abstract and intangible.

Regarding the § 101 rejection of claim 15, Appellant argues that "identification of 'product attributes affecting preference results'" is tangible (page 5 of the Appeal Brief); however, the Examiner submits that identification could merely refer to the abstract process of thinking about a product of interest. In other words, there is no requirement in the claim that the product be created or otherwise have an effect in the real world; therefore, this concept remains abstract and intangible.

Regarding the § 101 rejection of claim 19, Appellant argues that the step of "comparing the base preference, the downside and upside to identify product attributes affecting preference results" is tangible (page 5 of the Appeal Brief); however, the Examiner submits that "comparing" could merely refer to the abstract process of thinking about different product attributes. In other words, this comparison does not necessarily have an effect in the real world; therefore, this concept remains abstract and intangible. Appellant also cites Figure 3 as an example of a tangible result for the claimed invention; however, a tangible result must be claimed and not just disclosed in

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the specification. Currently, the tangible result is not claimed. Accordingly to *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998), the practical application must be recited in the claims. The fact that Applicant's claimed invention is capable of being used for practical purposes does not remedy the lack of tangibility of the claimed invention.

Regarding the § 101 rejection of claim 20, Appellant argues, "Claim 20 is not directed to a method including calculating steps and therefore, it is not clear from the Office Action or the Final Office Action how the Examiner is questioning the utility of this claim. The Examiner does not provide an analysis for claim 20. For at least this reason, Appellants respectfully submit that the method of claim 20 provides a useful and tangible result." (Page 5 of the Appeal Brief) Claim 20 is not rejected for lack of utility; therefore, Applicant's argument is unclear. Regarding tangibility, despite the fact that claim 20 is an apparatus claim, the elements of the apparatus must still do more than manipulate abstract ideas or solve mathematical problems (see MPEP § 2106.02). Claim 20 merely calculates product preference upside and downside and incorporates nonpreferential results into the product preference calculation. There is no practical application of these calculations; therefore, such calculations are mathematical algorithms *per se*, i.e., abstract ideas. Using a computer to perform these calculations does not obviate the § 101 rejection since (in the case of claim 20) there is no transformation of an article or physical object to a different state or thing nor does the computer produce a useful, concrete and tangible result (see MPEP § 2106(IV)(C)(2)).

Regarding the § 101 rejection of claim 21, Appellant argues, "Claim 21 is not directed to a method including calculating steps and therefore, it is not clear from the Office Action or the Final Office Action how the Examiner is questioning the utility of this claim. The Examiner does not provide an analysis for claim 21. For at least this reason, Appellants respectfully submit that the method of claim 21 provides a useful and tangible result." (Page 6 of the Appeal Brief) Claim 21 is not rejected for lack of utility; therefore, Applicant's argument is unclear. Regarding tangibility, despite the fact that claim 21 is an apparatus claim, the elements of the apparatus must still do more than manipulate abstract ideas or solve mathematical problems (see MPEP § 2106.02). Claim 21 merely calculates product preference by incorporating preference and nonpreferential results. There is no practical application of these calculations; therefore, such calculations are mathematical algorithms *per se*, i.e., abstract ideas. Using a computer to perform these calculations does not obviate the § 101 rejection since (in the case of claim 21) there is no transformation of an article or physical object to a different state or thing nor does the computer produce a useful, concrete and tangible result (see MPEP § 2106(IV)(C)(2)).

Appellant argues, "Page 15 of the Bauer publication does not describe calculating a base preference for the product, calculating downside or calculating an upside as contemplated by the present invention. In fact, the method of the present invention may rely on data collected through a pair comparison test..., but it is not the paired comparison test itself." (Page 6 of the Appeal Brief) The Examiner respectfully disagrees. The "Overall Preference" for the Foaming Spray Head versus the Non-

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Foaming Spray Head is determined, i.e., calculated, as seen in the table on page 15 of Bauer. This "Overall Preference" reflects a base preference. Based on opinions regarding "Sudsing Preference," "Feels More Slimy," "Easier to Rinse," "Feels Cleaner," and "Removes More Wax From Apples," the preferences for the Foaming Spray Head and Non-Foaming Spray Head, respectively, may be affected positively or negatively (which reflects a downside or upside of each product attribute). Alternatively, the Non-Foaming Spray Head could be set as the base preference of a spray head product, while making the spray head foaming could be an attribute that affects the upside or downside of the product (or vice-versa). Based on either interpretation, Bauer does indeed fully address the limitation in question.

Appellant's argument regarding claims 20 and 21 are based on the aforementioned assertion that Bauer "does not disclose calculating an upside and it does not disclose calculating a downside based on preference results." (Pages 7-8 of the Appeal Brief) However, the Examiner respectfully disagrees for the reasons presented above.

Also, Examiner notes that, as per MPEP § 2144.03(C), the statements of Official Notice made in the art rejection have been established as admitted prior art since Applicant has not traversed the Examiner's assertions of Official Notice. More specifically, the following statements of Official Notice are now formally established on record as admitted prior art:

Official Notice is taken that it is old and well-known in the art of automation to utilize software executed by a computer to perform calculations and generate

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spreadsheets commonly completed by hand. Use of a computer to carry out these functions yields more accurate and rapid generation of calculation and spreadsheet results.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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